ABSTRACT

A communication system enabling significant reduction in delay in handover between MAPs without increasing the number of MAPs to install. In the communication system, MAP(101) issues a Router Advertisement to AR(111) to AR(118). Particularly, MAP(101) assigns a plurality of Router Advertisements of a source of care-of address (RCOA) to register with HA to AR(118) of a cell on either side of a boundary of areas for each MAP. MN(107) receives a Router Advertisement transmitted from AR that is a communicating party among AR(119) to AR(126), and using the Router Advertisement, generates care-of addresses, RCOA and LCOA. AR(111) to AR(118) transmit the Router Advertisement RA generated by MAP(101) to MN in communication. Further, AR(111) to AR(118) transmit the care-or-addresses, RCOA and LCOA, issued from MN(107) to MAP(101).

Table 1

Term	Description	Remarks
Mobile Node (MN)	Mobile Terminal	
Correspond Node (CN)	Communicating party of MN	
Home Agent (HA)	Router of Home Network	
Foreign Agent (FA)	Router of migration place (except Home Network)	Only Ipv4
Home Address	Fixed address held by MN	
Care-Of Address (COA)	Address used in migration place	
Access Router (AR)	Router that executes processing for notifying MN of router information (Router Advertisement) (without generating COA) in migration place	
Mobility Anchor Point (MAP)	Router on layer higher than AR to control a plurality of ARs hierarchically	
Regional Care-Of Address (RCOA)	COA to identify MN in MAP and be notified to HA (enabling its automatic generation from Prefix of MAP)	
On-Link Care-of Address (LCOA)	COA to identify MN in network to which AR in communication belongs and be notified only to MAP (enabling its automatic generation from Prefix of AR)	
Binding	Correspondence between Home Address and Care-of Address of MN	
Binding Update (BU)	Notification to HA of Binding in migration place	
Binding Acknowledgement (BA)	Reception ACK in response to Binding Update	
Binding Request (BR)	Request for transmission of Binding Update to MN	
Gateway GPRS	Service node defined in	

Support Node (GGSN)	GPRS, extension of packet mode of GSM, serving as an external gateway	
Serving GPRS Support Node (SGSN)	Service node defined in GPRS, extension of packet mode of GSM, relaying between GGSN and MN	
Tunneling	Assigning a header newly and forwarding data	